SHIPS' SAFETY BULLETIN

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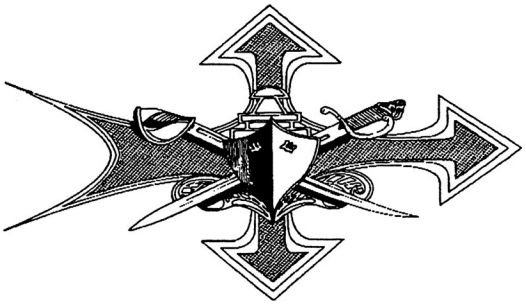

OCTOBER- DECEMBER 2005

Suggested routing should include CO, XO, department heads, division officers,
CMC, CPO mess, petty officers' lounge, work-center supervisors, and crew's mess.
Blanks provided for initials following review:

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The Sting of Snapback

By BMCS (SW/AW) John Upchurch
Naval Safety Center

A recent mishap involving line-handling procedures highlighted the need to address synthetic snapback. Existing safety precautions and procedures for line handlers protect Sailors from death or injury. OPNAVINST 3500.39B, *Operational Risk Management (ORM),* requires a safety brief before any evolution. Before you conduct any line-handling activities, address the following:

- Use only fixtures that have been weight-tested and have proper documentation.
- Do not overload any fitting.
- Observe all standard safety precautions for handling lines under tension.
- Do not put strains on kinked lines.
- Do not drag lines on decks. Imbedded grit and surface abrasion causes unnecessary wear on lines.
- Avoid surging lines unnecessarily on running capstans or winches as much as possible. Surging abrades and burns fibers on lines.
- Do not put sudden strain on lines. Instead load and surge smoothly to avoid shock loads.
- Do not let lines become fouled in machinery gears or other sharp metal equipment.
- The recommended safe distance when handling lines is six feet from chocks, bitts, cleats, capstans or gypsy heads.
- Do not stand in the bight of a line for any reason.
- Personnel tending lines on bitts or capstans shall stand 45 degrees on either side of the line of pull to prevent injury from snapback action.
- Synthetic lines may fail without warning which could be catastrophic. To prevent injury or death from snapback action, personnel shall not stand in the direct line of pull under any load.
- Exercise the utmost care when easing out or checking synthetic lines.
- Because of their rapid recovery, low coefficient of friction, and high extensibility under heavy loads, these lines may suddenly snap back resulting in death or injury to line handlers.

Make every safety brief specific for the evolution at hand. Several factors must be considered when conducting each brief since variables differ for each evolution. Employ ORM's five steps for all evolutions no matter how routine they seem. The steps you take could save a shipmate their life or limb.

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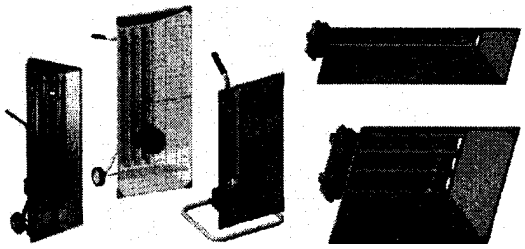
Quarterdeck Heaters

By EMCM (SW/AW) William Burkett
Naval Safety Center

With winter here and its accompanying chill, many pier-side ships will want to use electric quarterdeck heaters to make open-quarterdeck watch standing more bearable. Naval Sea Systems Command, in an Oct. 7, 1990 letter (serial 56Y11/397), authorized the use of only two electric heaters aboard ship: the Wellman model RP-3438, and the Chromalox, model RBC-6-4NC. Unfortunately both models have been discontinued. The technical point of contact for



this correspondence is NSWCDCD-SSES Code 9213, Mr. William Sorg: CM 215-897-7215, DSN: 443-7215, e-mail: w.sorg@navy.mil

The Chromalox model STAR-06-43-P replaced the RBC-6-4NC, while the CCI model OKP063 replaced the Wellman model RP-3438. The CCI model is not suitable for shipboard use. This heater is not double insulated and requires a ground.

The Chromalox heater provides six kilowatts (22,472 BTUs) of heat, and can use the ship's 440VAC, three-phase receptacle. To connect these heaters to a ship's electrical system, however, you need the following parts:

Electrical plug SYM 717.1 5935-00-935-2235
Electrical cable LSFHOF-9 0145-01-202-0673
(interior spaces only)
Electrical cable FHOF-9 6145-00-761-2878
(exterior spaces)
Receptacle SYM-915.1 5999-00-879-1519
(APL 999970683**)**

If you don't have a 440-volt receptacle near your quarterdeck, submit an alteration request (AER) to your type commander to get permission to install one.

To buy the approved heater, you must contact the manufacturer or a representative. The websites for Chromalox is:

http://www.chromalox.com. Here is a list of some offices and their phone numbers:

Location	Phone Numbers
Chromalox Factory Representatives:	
Los Angeles Area	(714) 953-2450
San Francisco Area	(800) 774-5630
Seattle, WA Area	(800) 634-5573 or (425) 885-0372
Florida Area	(800) 666-7706 or (727) 726-8334
Georgia Area	(770) 368-0030
North Carolina Area	(704) 841-8727
Richmond, Va. Area	(804) 755-6007
Connecticut Area	(860) 347-4655
Rhode Island Area	(401) 751-5508

Chromalox Precision Heat and Control Main Office (800) 443-2640 or (412) 967-3800

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NAVOSH Program Concerns

By HMC (SW) James Misa
Naval Safety Center

After safety surveys on both East Coast, and West Coast ships, I would like to discuss three NAVOSH areas of concern impacting all ships. The areas of heat stress management, respiratory protection, and the proper use of personal protection equipment (PPE) require closer attention by all ships.

During my interviews with division safety petty officers, and work center supervisors, I felt deck-plate knowledge of these areas was weak. Safety petty officers and work center supervisors must first possess sufficient knowledge of these programs to recognize deficiencies properly. I believe safety committee meetings would be a good venue in which to re-establish program compliance. OPNAVINST 5100.19D provides the necessary guidance to facilitate this training. The NAVOSH safety survey checklist available on the Naval Safety Center website: http://www.safetycenter.navy/mil/osh/checklists/afloat/navosh.doc can be used by safety petty officers and work-center supervisors onboard your ship to assess NAVOSH programs. I have highlighted particular areas of concern that need improvements based on OPNAVINST 5100.19D.

- *Dry bulb thermometers broken, missing, or improperly mounted within supply areas. Review paragraph B0204b(1) for proper placement.*
- *Space temperatures are not properly recorded and heat stress surveys were not performed when limits were met. Review paragraphs B0204b(3) and (4).*
- *Respiratory protection program manager not assigned and/or has not attended formal training. Review paragraph B0602 for details.*
- *Personnel not fit-tested, and/or have not received annual training. Refer to the ship's baseline industrial hygiene for placement of personnel. Review paragraphs B060 and B0603.*
- *Personnel not wearing respiratory protection when required. The ship's baseline hygiene surveys maintained by safety officer details processes that require respiratory protection. Safety officers must reinforce compliance through observations of safety practices.*

Educating personnel on the proper use of personal protective equipment (PPE) during specific processes starts at command indoctrination. Chapter B12 of OPNAVINST 5100.19D, your ship's baseline industrial hygiene survey, and material data safety sheets (MSDS) list specific types of PPE required during work processes. Common deficiencies observed in regard to PPE.

- *No eye protection worn while painting, handling HAZMAT, and non-vented goggles were worn when vented goggles (non- perforated) chemical splash and vapor/fume protection is required.*
- *Personnel observed wearing medical surgical gloves, and electrical gloves while handling hazardous materials.*

All Sailors should remember that these programs were implemented to prevent occupational injuries to personnel. Although it is all hands responsibility to promote safety, being an assigned safety petty officer, and work-center supervisor requires you to take a more proactive approach to Safety onboard your ship. Safety Petty Officers must be properly trained.

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Explosion-Proof Lighting

By DCC (SW) James Speed
Naval Safety Center

Results of safety surveys indicate 80% of ships do not maintain their explosion-proof lighting properly. Many lights in the paint-issue room, flammable liquid storeroom, and the gas cylinder storeroom in the fleet contain these discrepancies:

- The glass globe is either loose and/or missing
- The wrong type of light bulb installed
- The lead ring gaskets are missing
- The lead wire seal is missing
- The mounting bracket is loose or disconnected

Incorrect Light Bulb

Correct Light Bulb

PMS MIP 3301/008 is the maintenance requirement for the explosion-proof lighting fixtures. This is one of the most common discrepancies found during a safety survey.

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Flammable and Combustible Locker

By HMC (SW) James Misa
Naval Safety Center

Is your ready-use flammable locker properly maintained onboard your ship? Assess your locker from the picture depicted below?

If your locker is maintained like this, your locker requires special attention. NSTM 670, Stowage, Handling, and Disposal of Hazardous General Use Consumables; paragraphs B0302 and C2304 of OPNAVINST 5100.19D; and MRC Q-36R from PMS MIP 6600/003 Q-36R will provide you the necessary guidance to properly maintain your lockers. Here are some of common discrepancies we find during safety surveys:

- *Locker is not NAVSEA approved; NSTM 670-4.1 provides a list of approved models*
- *Cabinets not welded to the deck per MIL-S-901.*
- *Missing self-locking mechanism as safety precaution to prevent fires*
- *No inventory sheets, missing hardcopy material safety data sheets*
- *More than seven-day amount of supplied stored within.*
- *An 18# portable PKP dry extinguisher bottle was not stored near the cabinet*

I suggest workcenter supervisors get out into your spaces and assess your lockers for compliance. The ship's assigned hazardous material control manager shall maintain a list of all lockers along with their locations in the ship. The manager must spot areas throughout the ship at least quarterly to effectively control hazardous materials onboard your ship.

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Damage Control Survey

By DCC (SW) James Speed
Naval Safety Center

The damage-control survey begins with either an administrative review of various damage control (DC) items such as the gas-free closure log. After completing the administrative review, the surveyor (usually accompanied by the DC LPO) performs a walk through to survey both portable and fixed damage-control fire-fighting items. Also, the damage-control surveyor will walk through hazardous-material areas such as the paint locker, flammable liquid storerooms, and gas-cylinder storerooms to assess items such as airflow monitors, explosion-proof lighting and ventilation ducting. You can download the damage-control check-sheet used to assess items during this survey from the Safety Center's website: http://www.safetycenter.navy.mil

The surveyor will provide the necessary guidance and/or technical information to correct damage-control discrepancies identified during the survey. Below is a list of commonly damage control items found throughout the fleet during the survey. Most of them are PMS related. Common damage control discrepancies:

Airflow monitors: Not properly set at 50% of normal airflow, power not available and monitored locally or remotely.
Compressed gas cylinders: compressed gas cylinders are not properly stowed with grade B shock mounting requirements

SAR/SCBA: Not properly maintained, gauges out of calibration, hoses not hydroid or the six-year overhaul not complete

OVBD fitting: 2-½ and 4 inch fittings are seized and will not swivel, not pollution placards posted, missing connection gaskets, and no classifications posted.

Trunk safety nets: Not connected to staples, nets sag over 9 inches, net opening is over 24 ½ inches, and net is ripped or torn.

Explosion proof lights: Wrong light bulbs, missing lead wire seals, globes are loose, or mounting fixture is loose.

Portable fire extinguishers: CO2, PKP and AFFF extinguishers are not properly PMS'd, missing extinguishers from holder, missing tamper seal.

These are just a few items we commonly find. If your ship is scheduled for an upcoming safety survey, I encourage you to go to our web site and print out the damage control check sheet and do an honest self-assessment of your damage-control and fire-fighting equipment.

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Galley Safety Switches

By William Burkett
Naval Safety Center

Galley ventilation fires are one of the worst types of fires to have on your ship. Many safety features have been put in place in the galley ventilation system to prevent or contain these ventilation fires. According to statistics of safety surveys, 90% of all ships need to focus attention on these safety devices.

One of the most important parts of this system is the fail-safe thermostatic switch located in the ventilation ducts. Grease interceptor hood fail-safe thermostatic switches are an integral, but commonly overlooked, part of your galley ventilation system. These thermostatic switches (normally "Detroit" type switches) are located at intervals of one per transition piece of exhaust ventilation for the grease interceptor hood. These switches are calibrated to close and shut down the grease interceptor hood dampers and fans when the temperature reaches 250 degrees Fahrenheit. This serves to isolate and prevent the spreading of a fire in the duct system caused by heat-producing galley equipment.

However, the key to safety devices working properly is regular maintenance and periodic testing for proper operation. This maintenance is commonly overlooked due to the placement and poor access of the switches. Many times these switches are located behind false overheads and require removing panels for access. If the switches are difficult to access or not accessible at all, submit a job to have the proper access panels installed to allow for maintenance. This maintenance is accomplished by timely completion of MRC A-12 from MIP 5121/016. Once completed, affix a calibration sticker to the cover of each switch. This is an important item to check while conducting zone inspections.

PMS spot-checks can also highlight any discrepancies with this important part of your galley ventilation system. Remember this device is installed for a purpose, which is prevent a major grease fire from occurring and spreading.

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Motorcycle Requirements

By Dave Colburn
NAS Jacksonville Safety Department

We are finding more and more motorcycle operators attempting to ride on station who do not meet the minimum requirements. Let me emphasize, these are minimum requirements.

Every military motorcycle operator regardless of where you operate the motorcycle (on or off base), and all other personnel operating a motorcycle on a military installation, shall successfully complete Naval Safety Center (COMNAVSAFECEN) approved motorcycle training. Military personnel shall have a page 13 entry made in their military service record documenting motorcycle safety training.

Note: riders of motorcycles with sidecars, and tricycles are exempt from the course requirement.

There are two approved motorcycle safety courses. They are both from the Motorcycle Safety Foundation and both have classroom and range riding. First, for novice riders, is the Basic Rider Course, which takes three days to complete. The second is the experienced rider course – Skills Plus Rider Course, which is about four hours of book learning and range riding. Both the Basic Rider Course, and Skills Plus Rider Course have a written and riding demonstration test for successful completion. Both are available free of charge to military personnel (active and reserve), their dependents,

retirees, and civil service personnel. Contact your local base safety department for details.

Personal protective equipment (PPE) is mandatory for military personnel while operating or riding on a motorcycle regardless, repeat regardless, of location or duty status. PPE is required for all personnel operating a motorcycle on any military installation regardless of state statutes to the contrary. The following is the minimum PPE required:

- A properly fastened protective helmet certified to meet U.S. Department of Transportation (DOT) standards.
- Properly worn shatterproof goggles or full-face shield properly attached to the helmet.
- Properly worn long sleeved shirt or jacket. We recommend a motorcycle jacket with built-in joint and spine protective padding.
- Long-legged trousers.
- Full-fingered gloves or mittens designed for use on a motorcycle. Please note the phrase "designed for use on a motorcycle." That means ordinary cotton/leather gloves don't make the cut.
- Sturdy footwear. Leather boots or over the ankle shoes are strongly encouraged.
- A brightly colored outer upper garment during the day and a reflective upper garment during the night. (Most, well designed motorcycle jackets, are both brightly colored and contain at least 10 percent reflective materials, making them acceptable for both day and night riding and providing the additional joint and spine protection.) The outer upper garment must be clearly visible and not covered. This means that your backpack goes on under the outer upper garment. Military uniforms do not meet these requirements. Brown and black, dark green and dark blue, etc. are not bright colors and are not acceptable.

The orange, reflective vest will meet this requirement, but is not required.

The Navy requires successful completion of specific courses sponsored by the Motorcycle Safety Foundation. No card, No decal.

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Asbestos Control

By HMC(SW) Misa
Naval Safety Center

Since Naval Sea Systems cannot definitively establish that ships are free of asbestos containing materials, according to paragraph B0102 of OPNAVINST 5100.19D, all ships shall implement an asbestos-control plan. The type of control plan is determined by the type of asbestos materials present aboard your ship, and type of asbestos work each ship is allowed to perform.

Also outlined in Chapter B1 of the OPNAVINST 5100.19D, all work that involves asbestos containing materials is divided into three protocols, each with its own specific guidance.

Another important factor to note is that all ships have non-friable asbestos, and therefore, must comply with specific requirements of the "Protocol for Ship's Force Performing Non-Friable Asbestos Maintenance." Ships that have been identified as having friable asbestos onboard, based on their baseline industrial survey, shall comply with requirements delineated in Chapter B1.

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Q: What reference would I find information concerning zone inspections?
A: COMNAVSURFORINST 3120.1

Determining Mishap Trends

By HMC(SW) Misa,
Naval Safety Center

I have noticed that several safety officers are either unaware of their responsibilities in determining mishap statistical trends, or are having difficulty in establishing this program element. You will find the requirements to identify mishap trends in paragraph A0203c (6) in Chapter A2 of OPNAVINST. 5100.19D. This paragraph states the safety officers shall, "Maintain and analyze NAVOSH records (inspection/assessment reports, injury reports, and mishap statistics) and determine trends."

Paragraph A0602 states the command's safety council and enlisted safety committee shall, "Evaluate mishap and injury reports and logs as part of the command safety program evaluation. This evaluation should ensure mishap reporting procedures aid in determining causes, trends, places, and groups to target for specific training topics to prevent recurrence."

In other words, safety officers are tasked with conducting a mishap-data trend-analysis to determine where and what kind of mishaps are happening so specific hazard controls and training can be provided to eliminate those types of mishaps. For example, if your analysis reveals a high number of back injuries occur while moving ship's stores, your safety officer should determine why this is happening, implement controls, and provide specific hazard awareness training.

There is no Navy-wide or "universal" trend analysis program. Some safety officers develop a program using a computer software program with which they are familiar, while others use the spreadsheet to record their data. I've found that often the simplest trend analysis programs are the best ones. Mishap and injury data are recorded sequentially and then summarized during the safety council and committee meetings. Mishap investigations and training are conducted accordingly.

Implement a mishap trend analysis program with which you are comfortable but keep it simple. Share your findings, document your activities, and involve everyone in your safety program.

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Electrical Safety Tips

By EMCM(SW/AW) William Burkett
Naval Safety Center

Never work on line (energized) electrical equipment without the CO's permission. Do not energize any equipment that is tagged out.

Never operate a switch with your other hand on a metal surface. Check that portable electric equipment has been inspected and has a current inspection label affixed. Do not join more than two 25-foot extension cords together. Do not allow electric cords to run over sharp objects, chemicals, or hoses.

Electrical safety checks on personal electrical and electronic equipment is required initially when personal items are brought onboard. Refer to article 2.7.3.6.3 of NSTM 300 for guidance.

Electrical safety is the responsibility of all hands. All hands must have the division officer's permission to bring personal electrical/electronic equipment aboard. A Personal Electrical/Electronic Equipment Request Form is required. Forms are available at the electric tool issue room. Refer to Naval Ships' Technical manual, Chapter 300, revision six for further guidance.

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DEPARTMENT OF THE NAVY
NAVAL SURFACE WARFARE CENTER
CARDEROCK DIVISION

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ENGINEERING STATION
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IN REPLY REFER TO

9512
Ser 9213/176
11 Sep 2003

From: Commander, Carderock Division, Naval Surface Warfare Center
Philadelphia, PA 19112-1403
To: Commander Naval Air Force, U.S. Atlantic Fleet
Commander Naval Air Force, U.S. Pacific Fleet
Commander Naval Surface Force, U.S. Atlantic Fleet
Commander Naval Surface Force, U.S. Pacific Fleet

Subj: PORTABLE ELECTRIC HEATERS FOR USE ON QUARTERDECK - REVISED RECOMMENDATION FOR

Ref: (a) NAVSEA ltr 9510 Ser 56Y11/397 of 7 Oct 1988
(b) PHONCON NAVSEA (Code 05Z91) P. Ospina/NSWCCD-SSES (Code 9213) W. Sorg of 28 Aug 2003
(c) PHONCON NAVSAFCEN (Code 341EL) M. Carretero/NSWCCD-SSES (Code 9213) W. Sorg of 3 Sep 2003

Encl: (1) List of Chromalox Factory Representatives

1. Reference (a) recommended the use of two different electric radiant heaters for use on quarterdecks aboard ship: The Wellman Model RP-3438 and the Chromalox Model RBC-6-4NC. These two models have both been discontinued.

2. The new commercial portable electric radiant heater CCI Model OKP063 that replaced the Wellman Model RP-3438 is not suitable for shipboard use. This model is not double insulated and does not require a ground.

3. The commercial portable electric radiant heater Chromalox Model STAR-06-43-P that replaced the Chromalox Model RBC-6-4NC is a suitable replacement and is recommended. Manufacturer representatives are listed in enclosure (1). The new Chromalox model provides six kilowatts (20,472 BTU/hr) of heat and can use ship's 440VAC, three-phase receptacle.

4. This heater is acceptable for temporary use on "open" quarterdecks to provide personal comfort during in-port cold weather conditions. Ship's force must comply with manufacturers' recommended safety precautions regarding heater location in relation to combustible materials.

Subj: PORTABLE ELECTRIC HEATERS FOR USE ON QUARTERDECK - REVISED RECOMMENDATION FOR

5. To connect these new model heaters to a ship's electrical system, the following parts are required:

NAME	SYMBOL or PART NUMBER	NSN
Electrical plug	SYM 717.1	5935-00-935-2235
Electrical Cable (Interior spaces only)	LSFHOF-9	0145-01-202-0673
Electrical Cable (Exterior Spaces)	FHOF-9	6145-00-761-2878
Receptacle (if not installed)	SYM-915.1	5999-00-879-1519 (APL 999970683)

6. NAVSEA 05Z91 concurs per reference (b) and NAVSAFCEN 341EL concurs per reference (c).

7. The technical point of contact for this correspondence is Carderock Division, Naval Surface Warfare Center (NSWCDCD-SSES) Code 9213, Mr. William Sorg: Commercial 215-897-7215, DSN: 443-7215, email sorgw@nswccd.navy.mil.

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NSWCC-SSES Codes 92/92S/921, 9213(2), 9344

LIST OF CHROMALOX FACTORY REPRESENTATIVES

The website for Chromalox is: www.chromalox.com

Name	Location	**Phone Number**
Chromalox Factory Representative	Los Angeles Area	(714) 953-2450
Chromalox Factory Representative	San Francisco Area	(800) 774-5630
Chromalox Factory Representative	Seattle, WA Area	(800) 634-5573
		(425) 885-0372
Chromalox Factory Representative	Florida, Area	(800) 666-7706
		(727) 726-8334
Chromalox Factory Representative	Georgia Area	(770) 368-0030
Chromalox Factory Representative	North Carolina Area	(704) 841-8727
Chromalox Factory Representative	Richmond, Va. Area	(804) 755-6007
Chromalox Factory Representative	Connecticut Area	(860) 347-4655
Chromalox Factory Representative	Rhode Island Area	(401) 751-5508
Chromalox Precision Heat & Control	Main Office	(800) 443-2640
		(412) 967-3800

Enclosure (1)